THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. VI.] WEDNESDAY, MARCH 14, 1832. [NO. 5.

SYNCOPE AND CEREBRAL CONGESTION.

Observations on Syncope and Cerebral Congestion. By M. PIORRY.

THE above subject occupies the fifth section of M. Piorry's Collection of Memoirs, and deserves some notice in this Journal.

1. *Causes of Syncope.*—The general opinion, corroborated by Bichat, was, that syncope was entirely owing to suspension of the heart's action. But it is to be remembered, says M. Piorry, that many of the exciting causes of syncope, as moral impressions, odors, the sight of disgusting objects, &c. can only act on the brain or the organs of sense. Is it the same in syncope from hæmorrhage? Let us, says our author, interrogate the facts. It is rare that, in syncope, the action of the heart completely ceases. In hæmorrhage, the cerebral functions fail before the contractions of the heart. The latter organ beats a long time, though feebly, after the sensorial functions are suspended. The heart is found to beat for some time after an animal has been bled to death. If a man or animal be kept with the head elevated, after a considerable quantity of blood has been lost, syncope will take place, although the heart will be heard to beat in the chest, and even the pulse felt in the arteries of the lower extremities. "It is, therefore, in the brain that lipothymia commences." If we lower the head, and raise the inferior extremities, syncope will cease—hence we may conclude, that it is the restoration of cerebral excitement which puts an end to syncope. Those syncopes (says our author) which are produced by certain moral impressions and sensations, are evidently the result of defective action in the brain, the same as in the other cases. Pullen, indeed, separates these two kinds of syncope, placing those from hæmorrhage to the account of the heart—those from moral impressions or physical sensations to the brain; but Bichat, with whom our author disagrees, traces both classes to the same organ—the heart—M. Piorry, to the brain, conceiving that the heart is only secondarily affected.

Diagnosis of Syncope from Cerebral Congestion.—To discover that an organ is suffering requires not much skill; but to ascertain the mode in which it is laboring is not quite so easy. If irritation was always the same in its nature—"if diseases were, in all cases, alterations in *plus*, and never in minus"—in short, if there were no specific diseases, diagnosis would be a much easier study than it is. But reason, as well as experi-

ence, shows that there are different kinds of irritation—and it is in the endeavor to maintain its identity in all cases, that the disciples of Broussais have thrown themselves most off their guard. An organ will often exhibit the same symptoms from excess, and from defect of stimulus. Thus, when the retina is over-excited by intense light, indistinct vision is the result. The same takes place when we pass from a very clear light to an obscure one. The voice becomes hoarse when the larynx has been much exerted—and the same thing often occurs if we remain several days without exercising this organ. An instance of this is related by the author, but we imagine it is far from being a general phenomenon. The stomach becomes irritated, painful, and even inflamed, from excesses of the table :—the same phenomena occur when hunger is long sustained. The disease called hemicrania is occasioned by plethora, and also by inanition. The muscular fibres of the stomach, bladder, rectum, &c. contract by the excitation of their contents, or the influence of the nerves distributed to them. They contract also convulsively when they are deprived of their due supply of blood, or when the brain ceases to receive its supply of the vital fluid. Finally, observes our author, the phenomena of syncope and of apoplexy, or cerebral congestion, display an analogy and similitude that, he has no doubt, causes them often to be confounded. The distinction, however, is of vast importance, and M. Piorry proceeds to inquire, if there can be any functional symptoms which can tend to elucidate the diagnosis.

1st. In cerebral congestion, or apoplexy, there is suspension, more or less sudden, of the intellectual functions :—The same in syncope.

2d. In the *former* disease, there is a suspension of function in the organs of sense :—The same occurs in lypothymia. In both cases, we sometimes see spasmodic contractions, sometimes loss of power of the members.

3d. The drawing of the mouth and the partial paralysis have been laid down as pathognomonic signs of effusion on, or some disorganization of the brain ; yet our author has seen these phenomena unequivocally in syncope. The same may be said of convulsive motions in the eyes and muscles of the face — involuntary evacuations — stertorous breathing, &c. The state of the circulation furnishes more certain diagnostic marks. The contractions of the heart, in cerebral congestion, are slow, soft, and easily analyzed. In syncope, they are accelerated, weak, and very irregular. The pulse in general, and especially in the arteries about the head, is full, vibrating, and slow in apoplexy—the reverse in syncope. In the *former*, the face is red—in the *latter*, pallid. But these indications are not always so very clear in the state of the circulation. Cerebral congestions or apoplexies sometimes supervene in individuals, whose circulation is languid and pulse feeble—whose faces and lips are habitually pale. Thus, he observes, the diagnosis between syncope and apoplexy, in many cases, is very difficult ; and yet it is of the greatest importance that these two affections should be accurately distinguished from each other, as they require diametrically opposite treatment. The author is quite sure that the two affections are often confounded—acknowledging that he himself has committed the mistake. Indeed he relates a case of this kind. The diagnostic mark which M.

Piorry relies on is altogether a physical one. It consists in the *position* of the patient. If the phenomena depend on syncope, the horizontal position will ameliorate the symptoms, and vice versâ. If on cerebral congestion, the vertical posture will relieve, while the horizontal will aggravate the symptoms. In the latter case (cerebral congestion) M. Piorry recommends ligatures to be placed on the extremities, to produce a stasis of the blood in those parts. We much doubt the utility of such a procedure. If ligatures prevent the return of venous blood from the limbs, it also prevents any arterial blood being sent to them. The thing, therefore, is as broad as it is long.

II. *On Death from Syncope—Observations on Venesection in general.*

The cessation of the cerebral circulation is, our author thinks, next to asphyxia from the accumulation of bronchial mucus, the most common way in which death takes place. In all great hæmorrhages, there is an abundant secretion of fluid from the surface of the intestinal canal, and also from all the other mucous tissues, which tends further to exhaust the strength and deprive the brain of a due afflux of blood. The heart being ill supplied with nervous energy from the brain, becomes distended, and at length ceases to carry on the circulation. From the circumstance that the brain is encased in bone, the vessels will be found full after death, even from hæmorrhage—and this has led some pathologists astray. Our author has often seen death occasioned by injudicious venesection. In dilatation of the heart at the Hôtel Dieu, he has often seen the fatal effects of bloodletting. The author therefore lays down a set of rules respecting venesection, which he thinks it would be of great use to observe.

1st. When, in a person, we find a dull sound on percussion of the chest—when there is active dilatation of the heart—when the liver is enlarged—the veins distended, the pulse full, and circulation active, we may be sure that the circulation is in excess, and we need not fear to bleed freely. But if the symptoms are the reverse of the above, we should be cautious in the use of the lancet. We should also be cautious, he observes, when the skin is fresh-colored, but where the integral organs give indications the reverse of plethora. In doubtful cases we should never bleed in the horizontal position; for if syncope then occurs, we have no resource from change of posture.

INTRO-ANIMATE PATHOLOGY.

The Result of Modern Investigations on this Subject.

The following summary and deductions conclude the ingenious work of Dr. Neale on the Linnæan doctrine, some account of which we offered in a previous number.

From a careful review, says he, of all the facts before stated, I think we may be justified in coming to the following deductions.

1. That it is a general law of nature, from which even the human body is not exempted, that death (in most instances) is caused by the agency of parasitical insects and animalcules, which entering, nidifying

in, and preying upon, the bodies of animals, or the leaves, trunks, or cortical matter of vegetables, and corrupting their vitality, in a longer or shorter period, produce this effect—death.

2. That the presence of such parasitical animalcules has been amply proved in diseases of the human body, such as those of the skin,—scabies, guinea worm, leprosy, &c., by learned and competent observers: and in dysentery, phthisis pulmonalis, ophthalmia, and other maladies, by Rolander, Bartholinus, Linnæus, Lowenhoeck, Adams, Sir Joseph Banks, and other physicians, philosophers, and naturalists:—that their existence also is unquestionable in phthiriasis and ulcers, as proved by a great variety of acknowledged facts; and witnessed amongst others, by Sir Edward Wilmot, Drs. Mead, Heberden, Sir George Baker, Dr. Mouffet, and other physicians of equal veracity and authority:—and that their presence has been asserted and all but proved in plague, syphilis, scarlatina, puerperal fever, smallpox, measles, hooping cough, acrodynia, yellow fever, &c., by such men as Athanasius Kircher, Linnæus, Hauptmau Langius, and others of equal note.

3. That living parasitical animals have been found in almost every part of the human body, as in the brain, frontal sinuses, lungs, stomach, liver, intestines, kidneys, bladder, interstices of the muscles, &c.—as appears from the researches of anatomists and naturalists.

4. That substances called vermifuge, or the most speedily destructive of insectile and animalcular life, have been found generally the most valuable and efficient remedies in the cure of a great variety of human diseases; but more especially in plague, syphilis, puerperal fever, scarlatina, acrodynia, yellow fever, cholera epidemica, leprosy, dysentery, smallpox, hooping cough, measles, &c. &c.

5. That, from their extraordinary exemption from the contagion of plague, enjoyed by persons carrying on particular occupations, particularly those whose dresses are always saturated with powdered quick lime, as tanners, whitewashers, limeburners, &c., and also by all manufacturers and porters of olive oil in the Levant and coast of Barbary—and from the great efficacy of warm oily frictions and potions of olive oil; there seems to be little or no doubt that the efficient causes of plague consist in minute insects, whose vitality is incompatible either with oil or quick lime.

6. That as all living animals, clothed with fur or feathers, are universally believed, in oriental countries, to be the intermediate living agents in diffusing pestilence (cats, owls, &c. being invariably shot by the Franks during their times of seclusion), there seems to be much reason for believing that the insects of plague burrow in the skins of these animals, and are thus transported from place to place.

7. That the birds of the air die in large numbers, and have been even known to forsake countries during times of pestilence: and when the last pestilence raged at Gibraltar, parrots, canaries, and other small birds in cages, and even poultry and domestic animals, perished in great numbers. At Marseilles, during the plague of 1720, all the bakers died, probably from the acari or plague insects burrowing in the dry wheat flour of their ovens.

8. That epidemic diseases are generally diffused in three different

ways: namely, either by immediate contact, intermediate contact, or through the agency of certain mists, or exhalations, carried through the atmosphere.

9. That instances of the first mode of diffusion, called contagion, are most frequent in plague, syphilis, leprosy, smallpox, scabies, &c.

10. That the second mode of diffusion, or by intermediate contact, is that whereby these diseases are generally said to be inoculated, as by the puncture of a lancet or needle, or the application of an infected dossil of lint to a moist or abraded surface or the pores of the skin; but, beyond all, by the agency of winged or creeping insects, which by puncturing the skin, apply the poisonous matter to the open mouths of the absorbent vessels; and which insects we have denominated "pestiferous."

11. That the third mode of diffusion, or the agency of certain mists or exhalations from the earth, is that employed by DIVINE PROVIDENCE, at the first commencement of all epidemics: by which these are wafted over rivers, mountains, and even seas; and which exhalations, being admitted into the nostrils and lungs, become thus immediately applied to the sentient extremities of the nerves, paralysing the brain and spinal marrow, and instantly putting a stop to the muscular motion of the heart, and causing asphyxia, followed by death. By this mode, too, a multitude of persons are affected at the same time, and thereafter the disease is diffused as in radii from a centre.

12. That a non-electrical, or negatively electrified state of the atmosphere seems to be a most powerful predisposing cause at least in the human body, to prepare it to take on diseased action, and that, on the contrary, a highly electrified or positively electrified state of the atmosphere, is the most salubrious and conducive to human longevity.

13. That the winds from the *south-east* quarter (at least on this side of the equator), have been observed in all ages to be of a highly deleterious character. That such winds have been found to be instantly fatal if inhaled in the deserts of Lybia and Africa, and are known under the names of Simoom and Kampsin by the Arabs, Moors, and Turks, and in Italy, Malta, and Sicily, by the appellation of Sirocco winds: and that most epidemic diseases come to us from the S. E. quarter, and are brought by these winds, which are generally followed by the rapid fall of the mercury in the tube of the barometer, and are believed to be accompanied by a non-electrical state of the atmosphere.

14. That, on the contrary, the winds coming from the north-west quarter, are (on this side of the equator) of a highly salubrious quality: that they are frequently attended by clouds highly electrified, which, on discharging their positive electricity, and producing thunder storms and torrents of rain, restore the electrical equilibrium and salubrity; while, at the same time, they destroy insectile and animalcular life, which is always too energetically evolved by S. E. winds.

15. That the efficient causes of pestilence (believed by us to consist in myriads of transparent minute ova or animalcules), are wafted in straight lines over the surface of the globe, (on this side of the equator,) on the bosom of S. E. winds, proceeding in regular daily distances, commensurate to the daily flights of deleterious insects, such as those of the

wheat flies, aphides, locusts, &c., and which we believe might be visible to our eyes, if our powers of vision were sufficiently powerful to perceive such minute objects.

16. That a "state of predisposition" in the living human body, consists in a state of debility however produced: either by great solar heat, breathing impure air, imbibing copiously intoxicating liquors, exposure to night air, or the action of previous diseases or loss of blood, or great negatively electrical variation of the atmosphere in which we live.

17. That the experiments of Count Moscati have proved that albuminous matter, which is the most putrescent of all substances, is generally floating in the air of marshes; and that similar experiments made by Mr. Hermann, in Russia, have proved the existence of a similar substance in the air surrounding the bodies of those who are suffering under epidemic cholera.

18. That all great pestilences have been attended by, but most commonly preceded by, a similar mortality amongst cattle, and the other domestic animals, not even excepting the birds of the air, or the fishes in rivers: and also by diseases called "blights" amongst vegetables.

19. That blights, amongst corn and vegetables, are caused by myriads of small insects and animalcules.

20. That the feeding upon the flesh of diseased animals and blighted vegetable substances, has been ever found a most powerful predisposing cause of pestilence, and that such food has been ever found adequate to produce great mortality, as instanced in dry gangrene and convulsive and gangrenous ergotism, which have finally become epidemic.

21. That a noisome stench has been generally observed to precede or accompany the prevalence of epidemic diseases; as was remarked lately at Paris, during the disease called acrodynia or "dando" fever, and as has been mentioned in the sacred writings, and by various accurate observers.

22. That great heat, attended by calms, and a non-electrical state of the atmosphere, energetically develope insectile and animalcular life, and contribute to the evolution of mists and exhalations, which then arise copiously from all marshy plains and pools of stagnant water, which, at such periods, are prone to put on the color of blood.

23. That violent electrical convulsions and thunder storms instantly destroy insectile and animalcular existence.

24. That deleterious insects are either finally swept away by strong north winds into the sea, there to perish, or that seasons of great pestilence are followed by violent storms of thunder, lightning, and rain, which destroy the ova or animate causes producing pestilence, and restore salubrity, as is yearly witnessed in Constantinople, Syria, Egypt, and Barbary.

25. That the universal experience of mankind in all ages bears testimony to the prevalence of these facts:—That they are confirmed by the writings of all historians, sacred and profane—and that the inspired writers more especially confirm the truths here inculcated.

26. That insects are always styled in the sacred volume the armies of the MOST HIGH GOD, and the destined ministers to fulfil his will: and that nothing is wanting to make these truths universally acknowledged

but more accurate observations of what is now daily passing upon the surface of this our globe.

27. That all great pestilences have been commonly observed in this our hemisphere to have originated in the regions of the East, and to have been wafted on the bosom of S. E. winds over the other regions of the earth; as has been exemplified in the great pestilence of the 14th century, and more lately during the progress of the epidemic cholera; and that all minor deviations from this course have been only effected by the passing to and fro of multitudes of human beings in ships and caravans, bringing the insects with them—Nay, that even the sweating sickness which broke out in England in the army of Henry VII. on coming from France to Wales, was believed by the historical writers of that age to have been brought from the isle of Rhodes several years previously.—See Dr. Caius de Ephemera Britannica—Lord Verulam's History of Henry VII.—Thuani Histora. Lib. 5.—Lord Herbert's History of Henry VIII.

ATTENDANCE OUGHT NOT TO BE GRATUITOUS.

Heu, mihi! me malus abstulit error—amor pecuniæ.

[We copy the following very sensible letter to the Editor of the London Medical Gazette, as it presents a correct view of a subject on which there exists erroneous impressions in the community, and perhaps among medical men themselves.]

SIR,—

THE daily occupation of the medical man is at once the work of public humanity and of personal profit. His task and duty is to do good, to stand by the sick, to cheer the conscious sufferer from vicious indulgence, and to administer solace to the mind, and ease to the body. In the day of battle, the medical man endeavors to save the life which the soldier destroys; and when a national pestilence is abroad, the medical man is chiefly exposed to the pest while watching and learning its nature and treatment. He always performs the work of charity, because he gains his daily bread by being charitable.

A false notion is now afloat concerning the humanity of medical men. While a disease is threatening to infest our capital, public authorities are wisely convened to forestal and prevent its ravages among the dark and dirty dwellings of the poor; and the poorer people are cleansed and cheered according to the active and diligent instructions of their alarmed superiors. A general feeling of humanity is produced and enforced by private apprehensions. Sobriety, one of the first of Christian virtues, is now proclaimed, not by the voice of wisdom, but by the shout of calamity. In the discharge of this novel duty, the medical man is called upon to take his part; but his part is to be discharged, not in anticipating the arrival of the disease, but in meeting it when it is arrived. He is to hold himself in readiness to rise by night and by day, to enter the houses of the poor, to detect, to touch, to handle, and to treat, a loathsome sickness, and to lean over the bed, or to tarry by its side, till safety or

death shall have ensued. If there be any contagion or infection, he is exposed to the baneful influence; if there be any hazard of health, he is open to the obvious danger. We doubt not the moral energy and the professional avidity of any medical practitioner in the encountering of a new disease; the eagerness with which the philosophic physician would hasten, any hour, to survey, perchance to understand and to cure, a spreading evil fatal to the lives of men; but no man is justified in wantonly exposing his person to mischief; and every master of a family is bound to consider those who depend upon him for support. The danger may be adventured upon, but only with the prospect of a fair remuneration; and those authorities which require the medical man to serve for nothing, dictate an act of humanity to be practised only according to the feelings and the means of the individual dictated to. A medical man's time and judgment are purchaseable articles; and they are, like bread and wine, to be purchased in all seasons, both of prosperity and of national adversity; since humanity is exhibited, not by acting for nothing, but in doing to the utmost what is right and proper, in the hope of a legitimate reward. They who do less than this, are inimical to themselves and to the common weal; for how shall society be held together, if mutual advantages be not considered? The medical man must support himself by his labor, and he will soon cease to be able to act gratuitously if his labor do not supply him with the means to live.

But suppose there be no danger of infection, and that the disease were curable by a touch, nevertheless that touch, and that exertion, without hazard, is still worthy of a just reward. So that, if the poor are to be attended gratuitously, let the medical man act for himself, as he frequently does act, without ostentation, by giving, if he choose, his advice and his medicine as a free gift, merely with the hope of doing good.

These observations are presented to your notice, because some parishes have called upon medical men, and some medical men have voluntarily offered themselves, to act upon a principle of bald humanity—a humanity which is to be exercised according to the authority of a vestry. And it appears to me (perhaps I am sordid) that in exact proportion as we are called upon to do more, so are we worthy of a higher pay; and that when our rest and our health are to be exposed and broken, we are not justified in promising our services without the certainty of an appropriate remuneration. Money we desire for ourselves indeed, but more for those who live by our exertions. Money is the source of subsistence. The days are gone when we might pluck, and live with ease and pleasure, from the tree of life; and in England a man will be arrested for nudity, if he have not money to clothe himself withal. The profit to be expected from an extension of name and reputation, is remote and vacuous; and that policy is truly fallacious which places the well-being of an individual or a nation not in immediate, but in a prospective good; since who can foresee or control the adverse rise of intermediate circumstances?

Having advanced the principle upon which I, as a man, expect the just remuneration of my services, I am not ashamed to say with Horace—"*quærenda pecunia primum est.*" I would not let my ear be deaf, nor my eye blind to the sight and the sound of genuine poverty; nor would I spare my best exertions to alleviate the afflictions of the unfortunate,

the wretched, and the debased; the knot of my purse can be loosed to give as well as to receive; and I should blush indeed if my hand were not sometimes open to bestow as well as to accept. I have learned, from the practice of my profession, the pleasure of doing good; and I only demand for my exertions, especially public exertions, those pecuniary supplies which may still enable me to practise and to study medicine, to support my family, to benefit my friends, and to give to all those who in the hour of need I know will be relieved and comforted by the silent gift of benevolence. MEDICULUS.

November 25, 1831.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, MARCH 14, 1832.

RYAN'S MEDICAL JURISPRUDENCE.

THE great number of volumes that have been written on legal medicine, and the different views they present of the principles of this science, may be ranked among the causes of the indefiniteness of the ideas on this subject, of a great majority of the Profession in this country. Few probably are aware of the intricacy of this science, or how wholly incompetent is a common medical education, to enable a man to be a good jurist or to do himself credit when called on for professional evidence in a court of law, unless much time have been expressly devoted to this important branch. Legal medicine forms part of the study of the Law, and, if it be omitted in that of Physic, the practitioner is little to be envied to whose lot it falls to be questioned under oath by an intelligent and shrewd attorney, on such points as the Physician is usually expected to elucidate in criminal prosecutions. As our country grows older, crimes of all kinds will become more common, and medical evidence will be in more frequent requisition. Even at the present day, there are few men who have been long in practice, who have not been compelled, however reluctantly, to decide, by their evidence, the fate of some accused person; and still more important is it for those who are now students, to make themselves familiar with the intricate machinery of forensic medicine. To such we would recommend an attentive perusal of the "Manual" of Dr. Ryan, which has been republished by Carey & Hart, of Philadelphia, with such alterations as the peculiarities of our laws have rendered necessary. This Manual embraces the whole ground, appears to be compiled with great care from the best authorities, and the language is so plain and explicit as to render it clearly intelligible to the legal as well as medical student. Into the hands of the former, it will unquestionably find its way; to the latter, the principles unfolded in it should not be unknown.

HISTORY OF THE CHOLERA.

A Medical and Topographical History of the Cholera Morbus, including the Mode of Prevention and Treatment. By M. SCOUTTETTEN, Adjunct Professor of the School of Medicine at Strasburg, &c. &c. *With a Report read at the Royal Academy of Medicine, at Paris, Sept.* 17, 1831. Translated from the French by A. SIDNEY DOANE, A.M., M.D.

THE above is the title of a small volume just published by Carter & Hendee, in their usual style of neatness. The subject is one of exceeding interest to every member of the profession and the community. In Europe the various productions which have been issued from the press, with the design of enlightening the faculty in treating, or the public in avoiding, this fatal malady, are almost without number. In the last Monthly we have received from London there are no less than *eight* distinct works on this subject noticed or reviewed, and in the January No. of the Medico-Chirurgical we find reviewed seven elaborate works on Cholera, viz. those of Dr. Kennedy, Dr. Adam Neale, Mr. Bell, Mr. Orton, Mr. Searle, Dr. Lefevre, and Dr. Young. In addition to these are many miscellaneous works, pamphlets, and lighter productions, as reports, statements, papers, &c. &c. on the same subject, the *Notices* of which occupy about one hundred pages of the last mentioned periodical.

No very great uniformity can be expected in the representations or speculations of these documents which are flowing in upon us so rapidly. The perusal of them rather confuses than directs the mind. It is therefore an act of true benevolence in the Physician who has digested the various accounts that have been published, and presented us, within a small compass, most that is important to be known respecting the history, the symptoms, the modes of preventing, and the present modes of treating the disease.

Dr. Doane, of New York, to whom we are indebted for this translation, has left out the details of the *Report to the French Academy*, and presented only the general summary with which that report concludes, and thus has he diminished the bulk, without lessening, for reasons above stated, the value of his work.

For the purpose of illustrating the progress of the epidemic, a map is appended to this treatise, on which its advances from country to country are marked out.

This we believe is the first work published in this country on the subject of Cholera, and it is confidently recommended to those Physicians who are desirous of obtaining a view of the whole ground without spending half their income, and a still larger proportion of their time.

In noticing and recommending this work, we should except from the general approbation already expressed, the author's few pages on contagion. On this subject he is peculiarly unfortunate. He declares himself a non-contagionist. He is such in his own interpretation of this term; but in the

sense in which it is commonly taken he is a stout contagionist, and ought so to be ranked in arraying one side against the other. He says the cholera has been generally introduced into a place by infected vessels or caravans, and yet denies the contagiousness of the disease. One man who is laboring under it may give it to his attendant, and yet it is not contagious. And so on. The way in which Dr. S. makes out his case may be seen by the following extract, from page 44, with which we close the present notice.

"A man in health remains an unlimited time in a focus of infection; he leaves it, continues well, and goes to live among others who have not been exposed to the miasmata of cholera. Can this man communicate the disease? In other words, can a healthy man carry with him enough of the miasmata to communicate the disease? Observation answers in the negative. * * *

"But if this man, whom we supposed to have quitted the focus of infection, left it when the disease was almost appearing in him, and if he in fact become sick, the miasmata exhaled will then form a new focus of infection which *can* communicate the disease. The following is an instance. An European left Madras, where the cholera existed, in October, 1818: he fell sick on the journey, and died at St. Thomas-du-Mont, where the disease had not as yet appeared. The next day his wife died; two days afterward the landlord perished, and at the end of two days more, the landlady also was attacked with the cholera, as well as the domestics who waited upon them. This fact is one of the most remarkable which has been mentioned by the contagionists in favor of their theory, *but it proves against them.* To demonstrate the existence of contagion, the man must have communicated the cholera to others, without being affected by it himself, as every day Physicians carry vaccine virus, &c. without taking the disease. Thus we repeat it, a healthy man coming from the focus of infection, does not carry with him *enough* of the miasmata to reproduce the disease. This transmission does not occur except by the formation of a new focus"!

MEANS OF RENDERING GIBRALTAR HEALTHY.

Dr. Neale supposes the chief cause of the fever which has been so often and so fatally epidemic at Gibraltar, to be its close proximity to a lofty mountain which completely prevents its being perflated by winds from the north-east. He proposes, therefore, that the British Government should make a tunnel completely through the rock of Gibraltar, in the direction of north-east and south-west, for the purpose of admitting the cool breezes in the heats of summer, and thus affording a proper ventilation. The length of this tunnel would be about three quarters of a mile.

It is well known that the calcareous rock of Gibraltar abounds with large natural cavities, and he supposes it probable that some of these would be laid open in the course of the operation, and that some spring or lake of fresh water might be discovered there, which would add greatly to the healthful result of the work. In default of such discovery, or even in any circumstances, he suggests that a large cavity should be excavated in the side of this tunnel, for an ice house, on the plan of those which exist in the town of La Valetta, in Malta. The whole expense of these works is esti-

mated at about £50,000. If to this sum we add £150,000, we should come nearer than Dr. N. to the true cost of such an undertaking. Even at such an expense, however, the object would not be dear bought, if it were attained; and that it would be in a great measure, there is certainly a high degree of probability.

PURE WATER.

The universality with which all we eat and drink, is imbued with the water of the city, renders it of vast importance that a supply should be provided of that which is pure and wholesome. On the accession of our present excellent mayor, we were gratified to find this subject mentioned among those to which the attention of the city government was directed, and it was hoped, that ere this, some active measures would be taken towards the accomplishment of so desirable an object. The perfect success of the experiment which has been made at Philadelphia, leaves it no longer problematical whether the finances of this city would justify any extensive movements in this matter. No doubt can remain on the mind of any one who has given the slightest attention to the subject, that the proposed plan would not only be a source of health and comfort to our citizens, but also of actual revenue to the city. These lines, we have indited merely for the purpose of calling the subject up to the notice of those with whom its pursuit now rests, and we trust they will not be inactive in a work, on the expediency of which all the doctors are agreed.

Massachusetts Anatomy Bill.—This bill, with the report of Mr. Davis to the Massachusetts Legislature, are favorably noticed in the last London Medico-Chirurgical Review. After giving a copy of the act as it passed both Houses, the Editor of that Review offers some remarks upon it, from which we extract the following.

"It will be obvious" says he, "to our readers, that the foregoing Act embodies in its provisions most of what has been desired in this country. So far as we can see, it leaves untouched the penal statute, which makes dissection part of the punishment for murder and other great crimes. Probably, this may be the object of a separate enactment. The Act of the Massachusetts Assembly appears to be straightforward and simple, and calculated to answer the ends proposed. It has infinitely the advantage over the legislative bantling which, we had almost said fortunately, miscarried in this country. The American law leaves no field for trickery; does not open a job here and erect corners for abuse there; does not constitute boards, and licences, and committees; in fact it is not stained by that leaven of the patronage system, which seems to infect every action of every institution in this happy land. The American law simply provides bodies for dissection, and gives them first to the medical schools—to regularly-educated medical men when the schools have been supplied.

In conclusion, we beg to press one consideration on our medical brethren in town and country. At the present moment, foreigners are excelling us in the cultivation of our science, and there can be little question that this is

owing to their superior facilities for the acquisition of anatomical knowledge. In America, where obstructions were thrown, as here, in the way of the profession, those obstructions are vanishing before the energetic appeals of that profession to a wise legislature. Let us imitate their example, and we shall equal their success. * * * Liberal institutions are rising around us; the lion of freedom has roused himself, and its enemies are looking aghast. It is with science as it is with the political institutions of nations; she is withered and cramped by the trammels of oligarchies and of despotisms. Let her be free, say we, as the air we breathe, for the more she is released from her bondage, the more bold will be her gait, the more bright will be her hue."

Professor Pattison.—We seem to have obtained some credit abroad for the invitations extended to the Ex-Professor Pattison. The English and Scotch Journals hold the same language on this subject, as a sample of which, we present the following extract.

"We are extremely gratified in learning that our transatlantic brethren have healed the wounds inflicted on Mr. Pattison by his countrymen, by offering him professorships in two different Universities in the United States. This circumstance speaks volumes as to the talents of Mr. Pattison; but it speaks more than volumes as to the generosity—the almost CHIVALROUS HONOR and FEELING of the American Medical Profession! In this world, and sorry are we to say, in this country, an *unfortunate* man, whatever be his merits, too often receives a blow from every friend, in order to sink him lower in the sea of misfortune! May glory, fame, and prosperity forever attend that country, whose HONESTY is not yet engulphed in that sink of mercenary selfishness and corruption which entombed the honor and power of Asia, Egypt, Greece, and Rome—would that we could except modern Europe! N. B. The London University has acknowledged its injustice, by making Mr. Pattison a pecuniary recompence for his wrongs!!"

Analysis of the Blood in Cholera.—Dr. O'Shaughnessey went to Sunderland, as we stated a few weeks ago, to make some experiments on the blood of cholera patients. The results he has obtained are briefly the following:

"1. The blood drawn in the worst cases of *the* cholera, is unchanged in its anatomical or globular structure.

2. It has lost *a large proportion of its water*, 1,000 parts of cholera serum having but the average of 850 parts of water.

3. *It has lost also a great proportion of its* NEUTRAL *saline ingredients.*

4. *Of the free alkali contained in healthy serum, not a particle is present in some cholera cases, and barely a trace in others.*

5. Urea exists in the cases where suppression of urine has been a marked symptom.

6. *All the salts deficient in the blood, especially the alkali or carbonate of soda, are present in large quantities in the peculiar white dejected matters.*"

Nitric Acid in Toothache, by Dr. RYAN.—By referring to page 251, Vol. V. of this Journal, an account will be seen of Dr. Ryan's remedy for

toothache. In the last London Medical and Surgical Journal, we have the following note from him.

"Since my former note upon the extraordinary success of this acid, in giving immediate relief, when properly and cautiously applied to caries of the teeth, I have used it in many cases with invariable success. It should be applied with a gold or glass probe covered with lint, as a silver probe decomposes the acid, and renders it ineffectual. It is therefore necessary to cover the ordinary probes with lint very lightly, and to apply the acid quickly to every part of the carious surface. If the disease ascends high into the fang by a fine opening, complete relief cannot be obtained, unless the extremity of the nerve is touched, and this is a difficulty which is often met with, when the upper teeth are affected. In general, the application affords immediate relief without the slightest pain."

Preparation of Hydriodate of Potash.—Dr. William Gregory recommends the following process for the preparation of that salt. The iodine is to be dissolved with the aid of heat in a solution of pure potash. Enough potash must be added to form a solution having a pretty strong yellow color, and if too much has been used so as to destroy the color, iodine must be added till the color is restored. The solution is then evaporated to dryness. The dry mass, consisting of iodate of potash and iodide of potassium, is now to be exposed to a gradually increasing heat, till it acquires a pretty full red heat, in a covered crucible of platinum or silver. The salt melts, and the iodate of potash undergoes a decomposition exactly analogous to that which takes place in the chlorate of potash when exposed to a red heat. The whole of the oxygen, both of the acid and the potash, is expelled, and iodide of potassium remains; so that the whole of the iodine is now in the form of iodide of potassium, or hydriodate of potash. The heat must be continued at the same degree for about half an hour. When cold, the melted mass is softened out of the crucible with hot water, and dissolved in a moderate quantity of that liquid. If necessary, it is filtered, and the filtered solution is then evaporated to dryness by a gentle heat, when a snow-white crystalline salt is obtained. To ascertain whether the decomposition of the iodate has been complete, a small quantity of the salt is tested in a tube with alcohol, which ought to dissolve it entirely with the aid of heat. If any remains undissolved, and if the undissolved portion dissolves in water, and causes a white precipitate with acetate of lead, it is a proof that some undecomposed iodate is still present, and the salt must be again heated to redness till it stands the above test. A little practice renders it quite easy to know the proper degree of heat, and how long it should be continued.

The salt thus obtained is white and crystalline, deliquescing slightly in the air. It is easily soluble both in water and alcohol, especially if heat be applied. Its solution gives with a solution of corrosive sublimate a precipitate which at first is pink, but speedily changes to a bright scarlet. With acetate of lead it gives a bright yellow precipitate of iodide of lead, which is chrystalline if the solution be slightly acid and very dilute.

Overdose of Quassia.—Some years since, a patient with worms (ascarides) having been admitted into a certain hospital in London, he "was prescribed for by a certain physician, then a young man.—He probably having remarked the certainty with which the London pastry cooks and

confectioners are in the habit of administering a little infusion of quassia to certain swarms of most unprofitable customers (the domestic flies in their shop windows), bethought himself of giving a similar treat to the ascarides in his patient's bowels. He, therefore, boldly prescribed a powerful decoction of that wood to be thrown up the rectum, *more solito*. Next morning on the young physician's walking through the ward and arriving at the space then vacant, which had been on the foregoing day occupied by his luckless patient's bed, he turned sharply round to the nurse and inquired what had become of Thomas.—'Oh faith!' says the honest Hibernian, 'sure enough he's gone, sir.' 'Gone,' said the doctor, 'where?' 'Bless your soul, sir, where should he be gone, but to the dead house.' And so it was, sure enough, for the strong decoction of quassia proved so effectual a poison, that it not only killed the worms themselves, but the poor man that owned them."

The Nature of Animal Decomposition. — With a view to ascertain the nature of those changes which all animal and vegetable substances undergo, the following experiments have been made.

A piece of muscular flesh was cut from the leg of a calf about half an hour after it had been slaughtered, and inclosed within a glass tube, which was hermetically sealed by means of a lamp and blow-pipe. It was then exposed to the rays of the sun in a southern window during three days of summer. On the third day the whole of the internal surface of the tube was found to be covered with a bluish coating, resembling the blue covering of a plum, and was distinctly observed to be perfectly alive, consisting of minute animalcules, whose motions were perceptible even to the naked eye, but still more on the application of a magnifying lens. The same experiment was repeated with beef, mutton, lamb, pork, and fish, with the same results: excepting, that of all flesh, pork became the soonest animated; and of all the fishes observed, that of the mackerel was the soonest corrupted.

The above facts seem to favor the doctrine of animate pathology, for it is well known to every physician that pork and mackerel, when kept too long before being taken into the stomach, are more frequent causes of disease than any other species of animal food.

The Passage of a Simoom.—Bruce thus describes the approach of a simoom which he witnessed in crossing the desert of Nubia. "At eleven o'clock, while we contemplated with great pleasure the rugged top of Chiggre, to which we were fast approaching, Idris cried out with a loud voice, 'fall upon your faces, for here is the simoom.' I saw from the south-east a haze come, in color like the purple part of the rainbow, but not so compressed or thick. It did not occupy twenty yards in breadth, and was about twelve feet high from the ground. It was a kind of blush upon the air, and it moved very rapidly, for I scarce could turn to fall upon the ground with my head to the northward, when I felt the heat of its current plainly upon my face. We all lay flat upon the ground as if dead, till Idris told us it was blown over. The meteor or purple haze which I saw, was indeed passed, but the light air that still blew was of heat to threaten suffocation. For my part I found distinctly in my breast that I had imbibed a part of it, nor was I free of an asthmatic sensation till I had been some months in Italy at the baths of Poretta, near two years afterwards."

Puerperal Fever Epidemic.—We have well-authenticated records of the puerperal fever having been epidemic in Europe eleven times in the last two centuries; viz. in 1662, at Leipsic; in 1662, at Copenhagen; in 1723, at Frankfort; in 1746, at Paris; in 1767, in Normandy; in 1770, in the Hospital of St. Marks at Vienna; in 1771, in the lying-in Hospital of Westminster; again in Vienna, in the years 1776 and 1780; again in Paris, in 1782, in the Hotel Dieu; in 1786, at Arzago in Lombardy; once more in London, in 1787, and in Somersetshire, in 1811.

Monthly Notice of New Publications.

Under the above head, we propose, once a month, to offer some brief account of such works on subjects connected with the medical and other sciences, as may be *published*, *republished*, or *received* in this country. In order that the earliest information of such books may be given to our readers, we request publishers who may forward works to be noticed in this department of the Journal, to send them as soon as convenient after they issue from the press.

☞ All communications to the Editor should be left at his house, or at the office of CLAPP & HULL, No. 184 Washington Street.

Whole number of deaths in Boston for the week ending March 9, 38. Males, 18—Females, 20.

Of brain fever, 1—lung fever, 6—stoppage in the bowels, 1—dropsy on the brain, 1—infantile, 2—influenza, 2—inflammation in the bowels, 1—old age, 3—throat distemper, 1—consumption, 4—apoplexy, 1—intemperance, 2—inflammation on the lungs, 1—scarlet fever, 6—croup, 1—jaundice, 1—smallpox, 1—tumor, 1—unknown, 2.

THE BOSTON MEDICAL AND SURGICAL JOURNAL

IS PRINTED AND PUBLISHED EVERY WEDNESDAY, BY CLAPP AND HULL,

At 184 Washington St. corner of Franklin St., to whom all communications must be addressed, POST PAID. It is also published in Monthly Parts, on the 1st of each month, each Part containing the numbers of the preceding month, stitched in a cover.—Two volumes a year, of 420 pages each.—Price $3,00 per annum in advance, $3,50 if not paid within three months, and $4,00 if not paid within the year.—*Postage the same as for a newspaper.*